

WHAT IS CLAIMED IS:

1. An operation mode notifying method of notifying an upper apparatus of operation modes of a data processing apparatus, comprising:

5 storing display control information for displaying the operation modes of said data processing apparatus;

storing discriminating information for discriminating said operation mode of said data processing apparatus;

10 transmitting said display control information and said discriminating information when said data processing apparatus received a obtaining request of the operation modes from said upper apparatus; and

transmitting said discriminating information when said data processing apparatus received again a obtaining request of the operation modes from said upper apparatus.

15 2. The operation mode notifying method according to claim 1, further comprising:

20 changing said discriminating information based on said operation modes of said data processing apparatus when said obtaining request of said operation modes is received.

3. The operation mode notifying method according to claim 1, further comprising:

25 changing said discriminating information when said operation modes of said data processing apparatus are changed.

4. The operation mode notifying method according to claim 1,

further comprising:

storing a plurality of display control information,
wherein each said display control information has a
corresponding ID name.

5

5. The operation mode notifying method according to claim 4,
wherein

said discriminating information has an information to select ID
name assigned to said display control information.

10

6. The operation mode notifying method according to claim 1,
wherein said display control information includes image
information, and

15

said data processing apparatus transmits said held display
control information and said discriminating information which is formed to
said upper apparatus in accordance with the obtaining request of the operation
mode of said data processing apparatus from said upper apparatus, and when
the obtaining request of the operation mode of said data processing apparatus
is made again by said upper apparatus, transmits the discriminating
information for discriminating the operation mode of said data processing
apparatus and displaying said display information corresponding to a result of
said discrimination by control based on said display control information
received by said upper apparatus.

20

25

7. The operation mode notifying method according to claim 1,
wherein:

said data processing is a data forming apparatus,

said data processing apparatus holds discriminating information for allowing said upper apparatus to discriminate each of said available operation modes of said data processing apparatus and display control information for allowing said upper apparatus to display said operation mode on the basis of said discriminating information, and

transmits said discriminating information corresponding to the operation mode upon requesting and said display control information to said upper apparatus in accordance with a first obtaining request of said operation mode from said upper apparatus;

when said discriminating information and said display control information are received, said upper apparatus holds said display control information, discriminates each of the operation modes of said data processing apparatus shown by said discriminating information by control based on said display control information, and displays contents showing the operation mode corresponding to a result of said discrimination; and

said data processing apparatus again transmits said present discriminating information to said upper apparatus in accordance with the obtaining request of said operation mode from said upper apparatus so as to display the present operation mode by the control based on said display control information held in said upper apparatus.

8. The operation mode notifying method according to claim 7, wherein

said discriminating information is shown by each ID name added to each of the display information for displaying the various operation modes by images, and

said upper apparatus discriminates each of the display

information corresponding to each of said ID names by the control based on said display control information, obtains said display information from said data processing apparatus, and displays it.

5 9. The operation mode notifying method according to claim 8, wherein said upper apparatus receives and holds each of the display information corresponding to each of the operation modes prior to displaying the operation mode of said data processing apparatus.

10 10. The operation mode notifying method according to claim 7, wherein said upper apparatus holds the received discriminating information until it obtains the latest discriminating information, discriminates on the basis of said held discriminating information, and displays the operation mode corresponding to a result of said discrimination.

15 11. The operation mode notifying method according to claim 10, wherein said upper apparatus compares contents of said held discriminating information with contents of the received latest discriminating information and reflects only the different contents to the held discriminating information.

20 12. The operation mode notifying method according to claim 7, wherein said data processing apparatus holds updating interval information for controlling an interval for obtaining said discriminating information by said upper apparatus in correspondence to each of said upper apparatuses.

25 13. The operation mode notifying method according to claim 7, wherein said upper apparatus holds updating interval information in which an

interval for updating said discriminating information is shown and makes the obtaining request of the discriminating information on the basis of said updating interval information.

5 14. An image forming system comprising: an upper apparatus; a transmission path to which said upper apparatus is connected, and an image forming apparatus for notifying said upper apparatus of operation modes of said image forming apparatus via said transmission path, wherein

10 said image forming apparatus holds discriminating information for allowing said upper apparatus to discriminate each of said available operation modes and display control information for allowing said upper apparatus to display said operation mode on the basis of said discriminating information,

15 transmits said discriminating information and said display control information corresponding to the operation mode upon requesting via said transmission path in accordance with an obtaining request of said operation mode from said upper apparatus, and

20 if the obtaining request of said operation mode is again made by said upper apparatus, transmits said present discriminating information to said upper apparatus via said transmission path,

25 said upper apparatus makes the obtaining request of the operation mode of said image forming apparatus via said transmission path, when said discriminating information and said display control information are received via said transmission path, holds said display control information, discriminates each of the operation modes of said image forming apparatus shown by said discriminating information by control based on said display control information, displays the operation mode corresponding to a result of

said discrimination, and thereafter,

 makes the obtaining request of the operation mode of said image forming apparatus again via said transmission path, when said present discriminating information is received from said image forming apparatus via said transmission path, discriminates each of the operation modes of said image forming apparatus shown by said present discriminating information by control based on said held display control information, and displays the operation mode corresponding to a result of said discrimination.

15. A data processing apparatus for notifying an upper apparatus of operation modes, comprising:

 a discriminating information holding unit which stores discriminating information for discriminating said operation modes;

 a display control information holding unit which stores display control information for displaying said operation modes based on said discriminating information;

 a communicating unit for communicating with said upper apparatus,

 wherein said communicating unit transmits said display control information stored in said display control information holding unit and said discriminating information stored in said discriminating information holding unit to said upper apparatus, when received a obtaining request of operation modes from said upper apparatus; and

 transmits said discriminating information stored in said discriminating information holding unit when received again a obtaining request of operation modes from said upper apparatus.

16. The data processing apparatus according to claim 15, further comprising:

a discriminating information forming unit for rewriting said discriminating information based on said operation modes of said data processing apparatus when received said obtaining request of said operation modes.

17. The data processing apparatus according to claim 15, further comprising:

a discriminating information forming unit for rewriting said discriminating information when said operation modes of said data processing apparatus are changed.

18. The data processing apparatus according to claim 15,

Wherein said display control information holding unit stores a plurality of display control information, and each said display control information has a corresponding ID name.

19. The data processing apparatus according to claim 18, wherein

said discriminating information has an information to select ID name assigned to said display control information.

20. The data processing apparatus according to claim 15, further comprising:

a discriminating information obtaining unit which obtains said discriminating information corresponding to the operation mode upon requesting from said discriminating information holding unit in accordance

with an obtaining request of said operation mode from said upper apparatus,
wherein said data processing apparatus is image forming
apparatus,

wherein said discriminating information holding unit holds
5 discriminating information for allowing said upper apparatus to discriminate
each of its said available operation modes of said image forming apparatus;

wherein said display control information holding unit holds
display control information for allowing said upper apparatus to display said
operation mode on the basis of said discriminating information; and

10 wherein said communicating unit transmits the discriminating
information obtained by said discriminating information obtaining unit and
said display control information held in said display control information
holding unit to said upper apparatus, holds said display control information by
said upper apparatus which received said discriminating information and said
15 display control information, discriminates each of the operation modes of said
data processing apparatus shown by said discriminating information by
control based on said display control information, and after a display showing
the operation mode corresponding to a result of said discrimination is made, if
the obtaining request of said operation mode is made again by said upper
20 apparatus, transmits said present discriminating information to said upper
apparatus.

21. The data processing apparatus according to claim 15,

wherein said display control information holding unit holds the
25 display control information including image information, and

said communicating unit transmits said display control
information which is held by said display control information holding unit and

said discriminating information which is formed by said discriminating information forming unit to said upper apparatus in accordance with the obtaining request of the operation mode of said data processing apparatus from said upper apparatus, and when the obtaining request of the operation mode of said data processing apparatus is made again by said upper apparatus, 5 transmits the discriminating information for discriminating the operation mode of said data processing apparatus and displaying the display information corresponding to a result of said discrimination by the control based on said display control information received by said upper apparatus.